bone. The clavicular portion of the large breast muscle was gone. The left lung was tuberculous. On the tenth day afterward, in the morning, the abscess broke and the hand showed, on pressure, a knotted mass. The patient was breathing with difficulty. In the night he had a severe coughing attack, mucous expectoration came freely, and the abscess broke into the lung. It contained air and fluid. Pressure with the finger would empty the abscess, and a full breath would fill it with air. The coughing continued very severely, excited by the pressure. The abscess grew smaller, and in fourteen days there was only a little hole and a little fluid. Communication with the thorax was almost closed up, and fourteen days after that there was no fluid discharged.

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Very interesting were the changes in the hæmatococcus when treated with toxic blood. At first the movements of the cilia became markedly slower and, in consequence, locomotion was retarded, and after a few minutes complete cessation of motion occurred; the cilia appeared shorter and thicker; the oval body became round and somewhat enlarged; the whole organism took on a uniformly green color, and its definite structure could no longer be recognized. In the case of the paramæcium all movement ceased after three minutes' action of toxic blood obtained from a patient suffering from catalepsy. With other forms the same general results were obtained.

In treating these organisms with normal blood no change was observed in their structure, and they remained active indefinitely.

To eliminate the possibility of an error in the method, or contamination of the water with other substances, all the experiments were carefully controlled by placing in a portion of the water which was employed for diluting the toxic blood a specimen of the material used for making the test, and after several hours or even days the specimens remained unaltered, while if the toxic blood was added a change occurred in from one to twenty minutes, according to the amount of toxin present.

Ordinary distilled water cannot be used for diluting the blood, and if used must be redistilled from glass retorts. The author has frequently found that distilled water obtained from chemical laboratories has a slight acid reaction, and will produce those changes of pure chemical action in the algæ.

In the course of the above experiments it was observed that the protozoa and algæ succumbed to the action of toxic blood of patients suffering from functional nervous disorders quite as rapidly as to that of specific infectious diseases. This is in accordance with the theory of auto-intoxication and may aid us in the treatment of the so-called functional disorders. What this poison may be we cannot at this time ascertain, but that it exists will not be denied. Considering the uniformity with which the reactions in the above experiments occurred, the small amount of toxin required to cause the change, and the easy application of the method, this may be regarded as a delicate, reliable, and practical test for toxic states of the blood.